Before the
Federal Communications Commission
Washington, D.C. 20554

PR Docket No. 88-467

In the Matter of

Amendment of Part 97 of the
Commission's Rules to permit use
of the 17 meter band by the
Amateur Radio Services.

REPORT AND ORDER

Adopted: January 27, 1989; Released: January 31, 1989

By the Commission:

I. INTRODUCTION

1. On September 14, 1988, we released a *Notice of Proposed Rule Making* [1] *(Notice)* proposing to authorize amateur station transmissions in the 17 meter band.[2] This *Report and Order* adopts the rule amendments as proposed, as well as allows use of this band by amateur stations on a secondary basis prior to the date Government fixed services are required to vacate the band.

II. BACKGROUND

2. The 17 meter band is one of three new HF bands allocated to the amateur service by the 1979 World Administrative Radio Conference. [3] Normally, a two step process follows domestically after allocation of a frequency band internationally. We have taken the first step toward making the 17 meter band available to the amateur service by amending the Table of Frequency Allocations, 47 C.F.R. § 2.106.[4] Because of Government fixed operations, however, this band will not be available for amateur use until July 1, 1989.[5] The next step, the purpose of this proceeding, is to have the necessary operating rules in place prior to the availability of the 17 meter band to amateur stations.

3. Our proposals for the 17 meter band generally followed the pattern of the amateur service rules for the seven other high frequency (HF) bands. They consisted of operating privileges based on the class of operator license, separation of analog and digital emission types and maximum transmitter power. In response to the *Notice*, we received 12 comments and 1 reply comment.[6] Our proposals received substantial support.

4. Additionally, on September 28, 1988, The American Radio Relay League, Inc. (ARRL) filed a request for temporary use of the 17 meter band by the amateur service on a secondary, non-interference basis prior to July 1, 1989. The ARRL points out that amateur stations in more than 60 countries are already transmitting in the 17 meter band. Further, the ARRL states that early access to the band should be granted because transmissions by United States amateur stations would not cause any signficant additional interference to the remaining Goverment fixed stations in the band.

III. DISCUSSION

5. The *Notice* proposed several specific rules regarding the use of the 17 meter band by amateur stations. In the paragraphs below, we will discuss each proposal and the comments received.

6. *Operator license classes*. In the *Notice*, we proposed to authorize access to the 17 meter band to all General, Advanced and Amateur Extra Class operator licensees. This approach is consistent with our previous authorization of the new 12 and 30 meter bands.[7] We felt that the potential for interference in the 17 meter band would be minimized if we require the skills associated with the General Class or higher operator license.

7. Some commenters express support for authorizing access to the 17 meter band to only one or two of the highest level operator classes, while others support authorizing access to lower operator classes. William R. Gardner recommends that only Amateur Extra Class operator licensees be authorized the 17 meter band.[8] Arthur R. Smith states that access to the 17 meter band is a significant incentive for amateur operators to upgrade their operator license class and, therefore, the band should be authorized only to Amateur Extra Class operator licensees.[9] Eric R. Wolfe states that only Amateur Extra Class operator licensees should be authorized the entire 17 meter band and that Advanced Class operator licensees should be authorized only a portion of the band.[10] Shannon Cisco states that he could not support the proposal unless Technician Class operator licensees who had passed Element 3[11] are also authorized privileges in the 17 meter band.[12] Dr. Michael C. Trahos states that a subband for Novice and Technician Class operator licensees should also be authorized in the 17 meter band.[13]

8. The ARRL, in rebuttal, argues that Novice and Technician Class operators should not receive additional HF privileges in view of the fact that they had recently received enhanced HF operating privileges in the 10 meter band.[14] The ARRL notes further that the 17 meter band is relatively small in size and will also be made available to the Amateur-satellite service. For these reasons, ARRL believes that Novice and Technician operators should be denied access to the band and that no Novice/Technician subband should be created. The ARRL also said that it is not necessary to restrict the band to Amateur Extra and Advanced Class operators because those operator classes already have significant incentives for license upgrading by virtue of exclusive privileges in other HF bands.[15]

9. We concur that Novice and Technician Class operators should be excluded from the 17 meter band in view of the enhanced privileges that they recently received and because of the band's small size. We also agree that the band need not be restricted to Advanced and Amateur Extra Class operators because exclusive privileges in other HF bands provide ample incentive to lower class operators to upgrade to those two classes. We are amending, therefore, the rules as proposed to authorize access to the 17 meter band to all General, Advanced and Amateur Extra Class operator licensees.

10. *Transmitter power*. The *Notice* proposed the 1500 watt maximum transmitter power limitation for the 17 meter band that generally applies to amateur stations. *See*

47 C.F.R. § 97.67(a) and (b). Robert, Ruth and Kevin Biekert (Biekerts) oppose the authorization of 1500 watts transmitter power. They state that the small size of the band could accommodate only a very few stations transmitting with that much power and suggested a limit of 200 to 500 watts.[16] The ARRL reply comments note that the amateur service rules require that no more power should be used than necessary to engage in the desired communication. If 200 to 500 watts is sufficient then that is the power that should be used. The ARRL stated that the maximum transmitter power should be the same for the 17 meter band as for the other amateur service bands. The ARRL points out that after July 1, 1989, there will no longer be any fixed service stations to protect. Hence, restricted power for that reason is of no practical significance.[17]

11. Except for the 30 meter band, which is extremely small (50 kHz), the maximum authorized transmitter power may be used in the currently available HF bands. *See* 47 C.F.R. § 97.67(d)(4). The points made by the ARRL, with respect to transmitter power, are valid. We see no need to limit the operational flexibility in the 17 meter band by further restricting the transmitter power permitted.

12. *Analog and Digital Subbands*. The *Notice* proposed authorization of telegraphy emission A1A for the entire 17 meter band. We further proposed a 42 kHz subband at 18.068-18.110 MHz for digital emission type F1B for direct-printing, telemetry, telecommand and computer communications, and a 58 kHz subband at 18.110-18.168 MHz for analog emission types, such as facsimile, television and telephony. The proposal follows the general pattern for emission subbands in the amateur service HF bands. Separate subband segments facilitate the transmission of inharmonious emissions within a given band.

13. The ARRL states that each of the three International Amateur Radio Union (IARU) regions has independently adopted a resolution recommending a worldwide bandplan for the 17 meter band that includes the subbands contained in our *Notice*. Thus, the proposal is supported by amateur radio societies worldwide. The ARRL supports the concept of two subbands because analog telephony emissions tend to dominate the frequencies where they are authorized.[18] Anthony J. Sivo states that there should be no subbands established in the 17 meter band because amateur operators can work out reasonable arrangements among themselves.[19] The Biekerts state that all emission modes should be authorized in the 17 meter band, except for a subband for telegraphy and digital type emissions.[20]

14. In our view, two subbands in the HF bands will benefit the amateur community because they separate the wideband analog emissions transmissions from the narrowband digital emissions transmissions. Without such subbands, narrowband communications would be adversely affected. The purpose of the subbands is to accommodate the amateur community which is composed of persons with many diverse interests. Further, the band plan is consistent with the recommended worldwide band plan for the 17 meter band. We are adopting, therefore, the two subbands approach as proposed.

15. *Other Matters*. Robert A. Scupp requests that emission J3E be authorized for the analog emissions subband of the 17 meter band.[21] The ARRL and David B. Popkin recommend that we add emissions J3E, H3E and R3E in that subband in order to parallel the types of emissions authorized for the other HF amateur service bands.[22] The comments concerning the inclusion of emissions H3E, J3E and R3E are well taken. Their ommission in our proposal was an oversight. We are including those emissions in the final rules adopted in this proceeding. Additionally, an editorial change has been made to the proposed rules so that the line entries in Section 97.61(a) of the Commission's Rules, 47 C.F.R. § 97.61(a), will be correctly placed. This matter was brought to our attention by Robert A. Scupp.[23]

16. *Interim Operating Authority*. We have discussed ARRL's request for early access to the 17 meter band with the National Telecommunications and Information Administration (NTIA). NTIA advises that the Department of Defense (DOD) is still utilizing major portions of the band and will continue to do so until July 1, 1989. It has agreed, however, to allowing secondary use of the 17 meter band by stations in the amateur service, subject to immediate termination if interference is caused to Government operations.

IV. CONCLUSION

17. We conclude that the allocation of the 17 meter band for amateur station transmissions should be made available in accordance with our proposals concerning subbands, the classes of operators that should be given those frequency privileges, and the maximum amount of transmitter power that should be permitted. We also conclude that early access to the 17 meter band under the conditions imposed by DOD should be authorized. Early access on a secondary basis to Government fixed service operations will be authorized for General, Advanced and Amateur Extra Class operator licensees. Telegraphy emission A1A will be authorized for the entire 17 meter band. Frequency subband 18.068-18.110 MHz will be authorized for digital emission type F1B for direct-printing, telemetry, telecommand and computer communications. Frequency subband 18.110-18.168 MHz will be authorized for analog emission types, such as facsimile, television and telephony. Maximum authorized transmitter power will be that which is generally authorized to amateur stations. Early access to the band is a temporary authorization that will terminate upon the effective date of these rule amendments which will open up the band on a regular basis.

18. The rule amendments contained herein have been analyzed with respect to the Paperwork Reduction Act of 1980, 44 U.S.C. § 3501 *et seq.*, and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure or record retention requirements and will not increase or decrease burden hours on the public.

V. ORDERING CLAUSES

19. Accordingly, IT IS ORDERED, pursuant to the authority contained in 47 U.S.C. §§ 154(i) and 303(r), that Part 97 is amended as set forth in the Appendix, effective 0001 UTC, July 1, 1989.

20. IT IS FURTHER ORDERED that, pursuant to footnote US 248 to the Table of Frequency Allocations in Section 2.106 of the Commission's Rules, 47 C.F.R. § 2.106, temporary authorization for use of the 17 meter band IS GRANTED in accordance with the provisions of paragraph 17 hereof, effective 0001 January 31, 1989.

21. IT IS FURTHER ORDERED that this proceeding IS TERMINATED.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX

Part 97 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended, as follows:

1. The authority citation for Part 97 continues to read as follows:

Authority citation: 48 Stat. 1066, 1082, as amended; 47 U.S.C. §§ 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. §§ 151-155, 301-609, unless otherwise noted.

2. Section 97.7(c) is revised by adding the following line entry in the table between the last 20 meter band entry and the first 15 meter band entry, as follows:

Section 97.7 Frequency privileges.

* * * * *

(c) * * *

Meter band	Terrestrial location of the amateur radio station			Limitations (see para.(g))
	ITU Region 1	ITU Region 2	ITU Region 3	
		Kilohertz		
* * *				
17	18068-18168	18068-18168	18068-18168	
* * *				

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3. Section 97.7(d) is revised by adding the following line entry in the table between the last 20 meter band entry and the first 15 meter band entry, as follows:

Section 97.7 Frequency privileges.

* * * * *

(d) * * *

Meter band	Terrestrial location of the amateur radio station			Limitations (see para.(g))
	ITU Region 1	ITU Region 2	ITU Region 3	
		Kilohertz		
* * *				
17	18068-18168	18068-18168	18068-18168	
* * *				

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4. Section 97.7 (e) is revised by adding the following line entry in the table between the 20 meter band entry and the 15 meter band entry, as follows:

Section 97. 7 Frequency privileges.

* * * * *

(e) * * *

Meter band	Terrestrial location of the amateur radio station			Limitations (see para.(g))
	ITU Region 1	ITU Region 2	ITU Region 3	
		Kilohertz		
* * *				
17	18068-18168	18068-18168	18068-18168	
* * *				

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5. Section 97.61(a) is revised by adding two line entries to the table between the 14150-14350 kHz and 21000-21200 kHz entries, as follows:

Section 97.61 Authorized emissions.

(a) * * *

Frequency band (kHz)	Emissions	Limitations (see paragraph (d))
* * *		
18068-18110	A1A, F1B	

18110-18168	A1A, A3E, F3E, G3E, A3C, F3C, A3F, F3F, H3E, J3E, R3E

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6. Section 97.415(a) is revised by adding one line entry between the 14000-14250 and 21000-21450 entries in the kilohertz portion of the table, as follows:

Section 97.415 Frequencies available.

(a) * * *

Frequency band	Limitations (see paragraph (b))
kilohertz	
* * *	
18068-18168	
* * *	

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FOOTNOTES

[1] Notice of Proposed Rule Making, 3 FCC Rcd 5503 (1988).

[2] The frequencies between 18.068 MHz and 18.168 MHz are commonly referred to in the amateur community as the 17 meter band.

[3] *See* Final Acts of the World Administrative Radio Conference (Geneva, 1979).

[4] *See* Second Report and Order, General Docket No. 80-739, 54 RR 2d 1500 (1983).

[5] *See* 47 C.F.R. § 2.106, footnote US 248.

[6] Comments were filed by Kevin Biekert, Robert Biekert, Ruth Biekert, Shannon Cisco, William R. Gardner, David B. Popkin, Robert A. Scupp, Anthony J. Sivo, Arthur R. Smith, The American Radio Relay League, Inc. (ARRL), Dr. Michael C. Trahos and Eric R. Wolfe. The ARRL also filed a reply comment.

[7] *See* First Report and Order, PR Dkt. No. 84-960, 50 Fed. Reg. 18662 (1985).

[8] Comments of William R. Gardner at 1.

[9] Comments of Arthur R. Smith at 1.

[10] Comments of Eric R. Wolfe at 1.

[11] Element 3, consisting of a 50 question written examination, formerly was a requirement for the Technician Class operator license. At the present time, the written examination for the Technician Class operator license is the 25 question Element 3A, which represents about 50% of the former requirement.

[12] Comments of Shannon Cisco at 1.

[13] Comments of Dr. Michael C. Trahos at 2 and 3.

[14] Report and Order, 2 FCC Rcd 727 (1987).

[15] Reply comments of ARRL at 6.

[16] Comments of Robert, Ruth and Kevin Biekert at 1.

[17] Reply comments of ARRL at 6 and 7.

[18] Reply comments of ARRL at 4 and 5.

[19] Comments of Anthony J. Sivo at 3, 4 and 5.

[20] Comments of Robert, Ruth and Kevin Biekert at 1.

[21] Comments of Robert A. Scupp at 3.

[22] Reply comments of ARRL at 7. Comments of David B. Popkin at 1.

[23] Comments of Robert A. Scupp at 3.